Permit No. MI0058827

FACT SHEET

PERMITTEE/FACILITY NAME: CMS Land Company / CMS Land Company Little Traverse Bay Environmental Project

COUNTY: EMMET

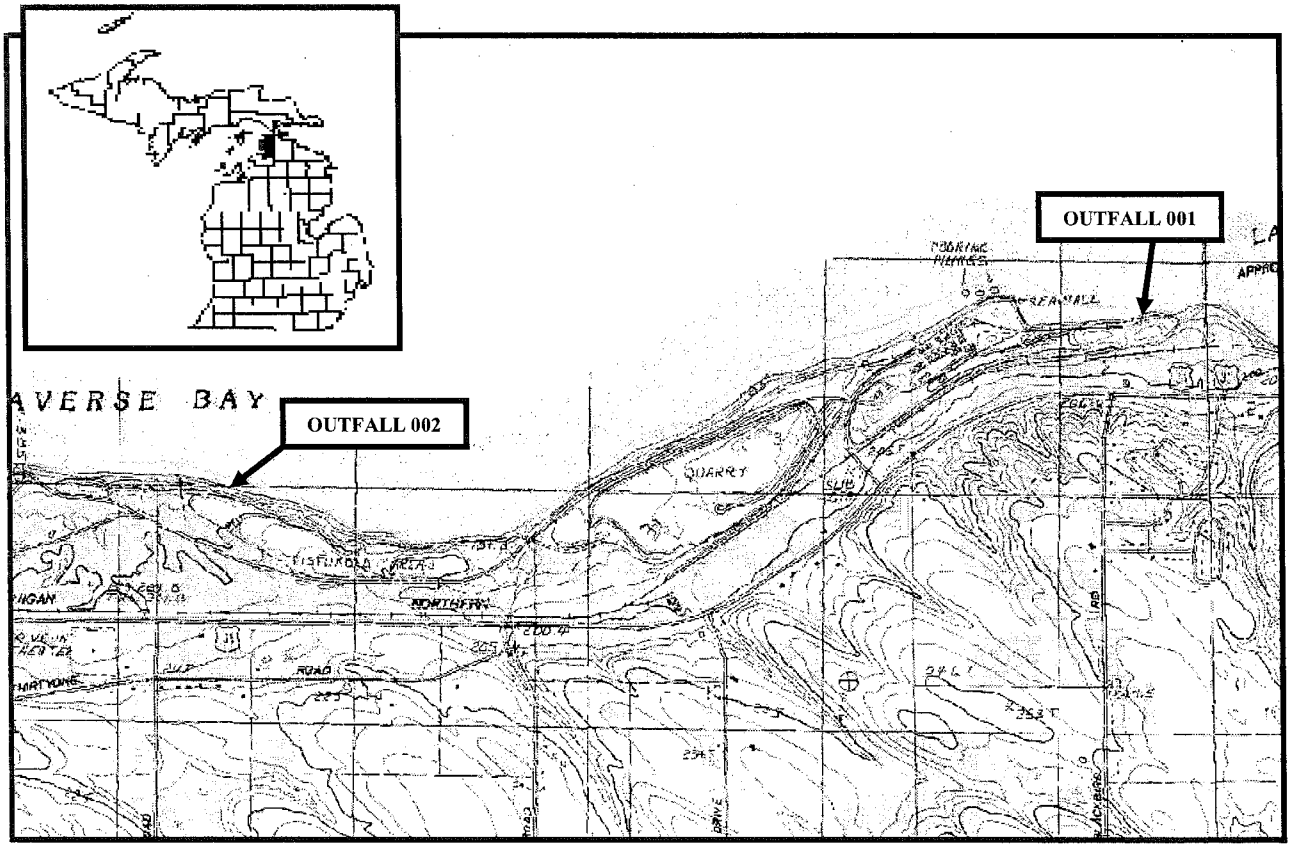
DESCRIPTION OF PROPOSED WASTEWATER TREATMENT FACILITIES

The collected cement kiln dust (CKD) leachate from the East Park area will be treated with sulfuric acid in a two-stage neutralization process to reduce the pH prior to mixing with clean groundwater diverted from upstream of the East Park CKD piles before discharging through Outfall 001 to Little Traverse Bay. Innovative treatment named Captur for removing total mercury is required to be used by December 31, 2012, to treat the East Park leachate. The collected CKD leachate from the Development Site area will be treated with sulfuric acid to reduce the pH, followed by the addition of alum and metal precipitant to induce coagulation and flocculation in the mixed reactor. The effluent from the mix reactor is then treated with ultrafiltration before comingling with clean groundwater and discharging through Outfall 002 to Little Traverse Bay. By December 31, 2012, this treatment is required to be replaced by the Captur treatment.

Solid and liquid wastes generated during the treatment of the CKD leachate will be trucked offsite for disposal.

MAP OF DISCHARGE LOCATION

Facility Public Land Survey System Coordinates:
NW1/4, SE1/4, Section 2 , T34N, R6 W
Resort Township, **EMMET COUNTY**



RECEIVING WATER

Little Traverse Bay is protected for agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, cold-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, total body contact recreation (May through October), and fish consumption.

MIXING ZONE

The mixing zone for this discharge used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is based on a 10:1 dilution of the receiving water to the effluent.

PROPOSED EFFLUENT QUALITY: (from completed application dated August 11, 2010)

Parameter	Minimum Daily	Maximum Monthly	Maximum 7-day	Maximum Daily	Units
Outfall 001: Treated Cement Kiln Dust Leachate collected from the East Park area					
Biochemical Oxygen Demand (BOD_5)	---	---	---	20	mg/l
Chemical Oxygen Demand	---	---	---	4.7	mg/l
Total Organic Carbon	---	---	---	3	mg/l
Ammonia Nitrogen (as N)	---	---	---	0.17	mg/l
Total Suspended Solids	---	---	---	430	mg/l
Total Dissolved Solids	---	---	---	915	mg/l
Total Phosphorus (as P)	---	---	---	0.07	mg/l
Dissolved Oxygen	0.36	---	---	---	mg/l
pH	7.4	---	---	8.4	S.U.
Aluminum	0.17	0.87	---	3.3	mg/l
Antimony	1.0	1.0	---	1.0	ug/l
Arsenic	20	22	---	23	ug/l
Barium	41	277	---	278	ug/l
Beryllium	0.5	0.5	---	0.5	ug/l
Cadmium	0.4	0.4	---	0.42	ug/l
Calcium	66	123	---	225	mg/l
Chromium	4.3	5.2	---	6.1	ug/l
Copper	3.0	3.1	---	6.3	ug/l
Iron	0.22	1.1	---	2.6	mg/l
Lead	1.4	1.4	---	1.4	ug/l
Magnesium	14	26	---	50	mg/l
Manganese	47	55	---	90	ug/l
Mercury	0.547	2.8	---	4.1	ng/l
Nickel	8.6	8.6	---	8.6	ug/l
Potassium	29	126	---	167	mg/l
Selenium	2.3	2.8	---	3.3	ug/l
Silver	0.13	0.13	---	0.13	ug/l
Sodium	13	55	---	90	mg/l
Thallium	1.0	0.9	---	1.0	ug/l
Vanadium	4.5	18	---	27.4	ug/l
Zinc	22	64	---	66	ug/l

Parameter	Minimum Daily	Maximum Monthly	Maximum 7-day	Maximum Daily	Units
Outfall 002: Treated Cement Kiln Dust Leachate collected from the Development Site area					
Biochemical Oxygen Demand (BOD_5)		10	---	10	mg/l
Chemical Oxygen Demand	---	50	---	50	mg/l
Total Organic Carbon	---	15	---	15	mg/l
Total Suspended Solids	---	2.3	---	2.3	mg/l
Total Dissolved Solids	---	1,963	---	1,963	mg/l
Dissolved Oxygen	7	---	---	---	mg/l
pH	7.93	---	---	8.26	S.U.
Aluminum	121	135	---	144	ug/l
Antimony	0.5	0.5	---	0.5	ug/l
Arsenic	4.1	4.4	---	4.7	ug/l
Barium	98	99	---	101	ug/l
Beryllium	0.5	0.5	---	0.5	ug/l
Cadmium	0.1	0.1	---	0.1	ug/l
Boron	53	54	---	55	ug/l
Total Chromium	2.9	3.0	---	3.1	ug/l
Copper	3.2	3.6	---	4.1	ug/l
Iron	404	405	---	407	ug/l
Lead	0.5	1	---	0.5	ug/l
Molybdenum	18.1	18.9	---	20.0	ug/l
Manganese	10	10	---	10	ug/l
Mercury	0.554	0.767	---	0.916	ng/l
Nickel	4.3	4.9	---	5.7	ug/l
Silicon	4.143	4.281	---	4.514	mg/l
Selenium	4.0	4.4	---	4.7	ug/l
Silver	0.1	0.1	---	0.1	ug/l
Strontium	1.044	1.045	---	1.047	mg/l
Thallium	0.5	0.5	---	0.5	ug/l
Vanadium	6.3	6.4	---	6.7	ug/l
Zinc	29.6	30.1	---	30.4	ug/l

PROPOSED EFFLUENT LIMITATIONS: (see draft permit)

BASIS FOR PROPOSED EFFLUENT LIMITATIONS

Based on this facility's application for an NPDES discharge permit, the Department of Natural Resources and Environment (Department) proposes to issue the applicant a permit to discharge, subject to effluent limitations and certain other conditions within the permit. Effluent limitations for total mercury, acute toxicity, chronic toxicity, dissolved oxygen, and pH are based on water quality standards. Monitoring requirements for total dissolved solids and ammonia nitrogen (as N) (Outfall 001 only) are based on water quality concerns. Monitoring requirements for flow, equipment inspection, and outfall observation are based on the permit writer's judgment.

ADDITIONAL INFORMATION

The Department proposes that the applicant's Antidegradation Demonstration, based on information required by Subrule (4) of R323.1098, shows that lowering of water quality is necessary to support the identified important social and economic development in the area. This is solely for purposes of satisfying state water quality regulations and is not intended to supplant local requirements, including land use or zoning laws. It is not, and should not be construed as, a finding by the Department that the proposed development meets local requirements or ordinances.

The draft permit includes requirements to terminate the discharge(s) if the final effluent limits are exceeded. The discharge(s) cannot be resumed until the Department is notified of the measures taken to assure that the discharge(s) will meet the effluent limits specified in the draft permit.

REGISTER OF INTERESTED PERSONS

Any person interested in a particular application, or group of applications, may leave his/her name, address, and telephone number as part of the file for an application. The list of names will be maintained as a means for persons with an interest in an application to contact others with similar interests.

PUBLIC COMMENT

Comments or objections to the draft permit received between November 8, 2010, and December 10, 2010, will be considered in the final decision to issue the permit.

A Public Hearing will be held to provide an opportunity for the public to present evidence and views on the draft permit. The Public Hearing will be held at the Petoskey Middle School, 801 Northmen Drive, Petoskey, Michigan 49770, at 7:00 p.m. on Thursday, December 9, 2010. All interested parties are invited to attend.

The Department will also consider comments made at the hearing when making its final determinations on the permit. Further information regarding the draft permit or the public hearing may be obtained by contacting Alvin Lam, Permits Section, Water Resources Division, Department of Natural Resources and Environment, P.O. Box 30458, Lansing, Michigan 48909, telephone: 517-335-4132, e-mail: lama@michigan.gov.